DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1x.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-013837
Date Inspected: 28-Apr-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1200
Location: Job Site

CWI Name:	Tony Sherwood			**CWI Present:**	☑ Yes	☐ No		
Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A	
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A	
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A	
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A	

Bridge No: 34-0006
Component: OBG Sections

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:
1) Repair welding was being performed as E1/E2 – D1 - inside; ABF welding personnel Mitch Sittinger (#0315) and QC Inspector Tony Sherwood.

2) Work in progress at E3/E4 –E and F; ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) with QC Inspector Jim Cunningham.

At E1/E2 – D1(bottom plate) this QA Inspector randomly observed QC Inspector Tony Sherwood monitoring repair welding using the Shielded Manual Arc Welding (SMAW) process by ABF welding personnel Mitch Sittinger (#0315) from inside the Orthotropic Box Girder (OBG). This QA Inspector observed the excavation of a defect rejected by ultrasonic testing approximately 850 mm from the side plate (C). The excavation was 180 mm in length, 15 mm wide and 13 mm deep. The QA Inspector randomly observed QC Inspector Tony Sherwood perform and accept the Magnetic Particle Testing (MT) of the excavation prior to welding. This QA Inspector observed QC Inspector Tony Sherwood verify the following welding parameters prior to the start of repair welding: 132 amperes using a 3.2 mm diameter E7018 electrode. The QA Inspector observed the repair excavation at this location appeared to have been completed and the excavation of several repairs had started. The welding observed appeared to comply with WPS - ABF-WPS-D15-1001-Repair.

At E3/E4 –E and F (E-side plate and F-edge plate) this QA Inspector randomly observed QC Inspector Jim Cunningham and ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042). During the first observation at this location welding was not being performed and QC Inspector Jim Cunningham informed this QA Inspector welding would begin at approximately 1030 hours (after the morning break). This QA Inspector returned to this location at approximately 1030 and observed welding had started. This QA Inspector observed the Bug-O track system was not being used and ABF welding personnel Jeremy Dolman (#5042) was using the Flux Cored Arc Welding (FCAW) process by hand. The welding was being performed at E3/E4-F (edge plate) and QC Inspector Jim Cunningham was present monitoring the welding parameters; 218 amperes and 24.1 volts at a travel speed of 186 mm per minute. QC Inspector Jim Cunningham stated welding was being performed on the transition area between OBG sections E3 and E4 using WPS - ABF-WPS-D15-3042B-1. The area welding was being performed at had limited space for access with ABF welding personnel Jeremy Dolman (#5042) performing the welding and Rory Hogan (#3186) assisting. This QA Inspector returned to this location later in the shift and observed the Bug-O track system was now being used to weld on E3/E4-E (side plate). The welding being performed was on the base material adjacent to the groove and when this QA Inspector asked QC Inspector Jim Cunningham the purpose of this welding the QA Inspector was informed ABF welding personnel had been instructed to proceed with welding a transition area to compensate for the offset between E3 and E4 at these locations. The QA Inspector asked if a Request For Information (RFI) had been submitted regarding the welding and the use of the groove welding WPS for the work being performed. QC Inspector Jim Cunningham informed this QA Inspector a RFI had been submitted, but that an answer had not been received and that ABF had elected to proceed at their own risk. This QA Inspector informed QA Inspector's Rick Bettencourt and Danny Reyes of the observation. Please see photos below of the areas welded below. The area on side plate (E) is approximately 100 mm wide and 190 mm long and on edge plate (F) 125 mm wide and 150 mm long.

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer